

**WHAT IS CLAIMED IS:**

1. A purification method that comprises subjecting a sample containing minicells to density gradient centrifugation in a biologically compatible medium, whereby minicells are separated from contaminants in said sample to obtain a purified minicell preparation.
2. A method according to claim 1, further comprising a preliminary step of performing differential centrifugation on said sample containing minicells.
3. A method according to claim 1, further comprising at least one step of filtering said sample containing minicells.
4. A method according to claim 3, wherein said step of filtering said sample containing minicells employs at least one filter employing a pore size less than or equal to about 0.2  $\mu\text{m}$ .
5. A method according to claim 3, wherein said step of filtering said sample containing minicells is a dead-end filtration with a filter employing a pore size of about 0.45  $\mu\text{m}$ .
6. A method according to claim 1, further comprising the step of treating said purified minicell preparation with an antibiotic.
7. A method according to claim 1, wherein said medium is isotonic and non-toxic.
8. A method according to claim 1, wherein said medium consists essentially of iodixanol and water.
9. A purification method that comprises subjecting a sample containing minicells to a condition that induces parent bacterial cells to adopt a filamentous form, then filtering said sample, whereby minicells are separated from parent bacterial cells.
10. A method according to claim 9, wherein said condition is an abnormal osmotic condition, an anaerobic condition, or a nutrient limiting condition.

11. A method according to claim 9, wherein said sample is incubated in a hypertonic medium.

12. A method according to claim 9, wherein said filtering step is a dead-end filtration with a filter employing a pore size of about 0.45  $\mu\text{m}$ .

13. A purification method that comprises (a) subjecting a sample containing minicells to density gradient centrifugation in a biologically compatible medium, and (b) subjecting said sample containing minicells to a condition that induces parent bacterial cells to adopt a filamentous form, then filtering said sample, whereby minicells are separated from contaminants in said sample to obtain a purified minicell preparation.

14. A purification method that comprises the step of removing endotoxin from a sample containing minicells.

15. A method according to claim 14, wherein said step of removing endotoxin employs anti-Lipid A antibodies.

17. A method according to claim 1, further comprising the step of removing endotoxin from said sample containing minicells.

18. A method according to claim 9, further comprising the step of removing endotoxin from said sample containing minicells.

19. A purification method that comprises (a) subjecting a sample containing minicells to density gradient centrifugation in a biologically compatible medium, (b) subjecting said sample containing minicells to a condition that induces parent bacterial cells to adopt a filamentous form, then filtering said sample, and (c) removing endotoxin from said sample, whereby minicells are separated from contaminants in said sample to obtain a purified minicell preparation.

20. A purified minicell preparation, which was prepared according to the method of claim 1, and contains fewer than about 1 contaminating parent bacterial cell per  $10^7$  minicells.

21. A purified minicell preparation, which was prepared according to the method of claim 1, and contains fewer than about 1 contaminating parent bacterial cell per  $10^8$  minicells.

22. A purified minicell preparation, which was prepared according to the method of claim 1, and contains fewer than about 1 contaminating parent bacterial cell per  $10^9$  minicells.

23. A purified minicell preparation, which was prepared according to the method of claim 1, and contains fewer than about 1 contaminating parent bacterial cell per  $10^{10}$  minicells.

24. A purified minicell preparation, which was prepared according to the method of claim 1, and contains fewer than about 1 contaminating parent bacterial cell per  $10^{11}$  minicells.

25. A preparation of minicells that is substantially free of endotoxins.